

ABSTRACT

The invention discloses methods for controlling chlorogenic acid synthesis by manipulation of hydroxycinnamoyl-CoA quinate hydroxycinnamoyl transferase (HQT) genes. Isolated nucleic acids encoding HQT and methods for their use are provided. Preferred embodiments are the nucleotide sequences which encode the polypeptide sequences of Fig 3 (sequences of Fig 7). Also provided are variant sequences (e.g. alleles and orthologues) and complementary sequences, plus vectors, host cells and plants. Methods of the invention include the use of nucleic acids to express or down-regulate HQT in plant cells and plants. The methods may be used to alter one or more characteristics in a plant e.g. texture, flavour and antioxidant properties.